

PRECEPTION AND CONCEALMENT

SEP 15 1977
Dr. Joshua Lederberg
1431 PITMAN AVE.
PALO ALTO, CALIF. 94301

Comment copy.

(This essay introduces 'preception' as a term intended to be broader than 'deception', embracing the whole span of measures intended to influence the perceptions of the viewer — by whatever means, and whether true or false. In common usage, a precept is a rule of behavior that a preceptor wishes to induce in his audience.)

Intelligence analysis resembles scientific research in many ways — fragmentary data often evoke a range of hypotheses, and in turn stimulate the collection of more information designed to corroborate or falsify them. Intelligence entails one unmistakable difference: the adversary is witting */ , uncooperative and self-consciously

*/ In fact this term is almost unique to intelligence jargon

interested in the outcome of your analysis. (The invocation of 'Murphy's Law', that nature exercises a malevolent will, is in fact put down as either a superstition or joke — so let us borrow the name Murphy for our adversary.)

Knowing that Murphy lives means that we are constantly on guard, in the interpretation of intelligence data, that we might be being deceived. However, it is often difficult to prove that Murphy is actively fabricating data for our benefit; further it is often argued that deception cannot be sustained for long periods in peacetime. The net result, all too often, is that the possibility of deception is always acknowledged, but perhaps not often enough actively pursued. Even more important, the moralistic dichotomy — either Murphy is lying {the villain!}, or he's not — blinds us to a much wider range of preceptions that Murphy may be exercising, and which then distinguish the data of intelligence from those of natural science: namely, that a witting Murphy will be confounding us in relation to {his perception of} the national security values we attach to our conclusions.

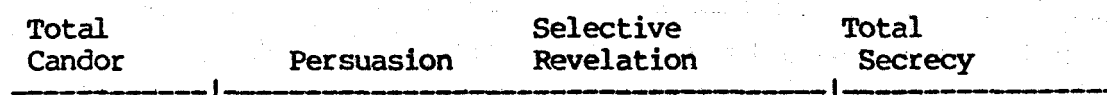
Far from being the unique province of a villainous bureau of disinformation, preception is warp and woof part of all human discourse, and above all of interstate relations where mutual perceptions are so vital to security and survival.

This nonrandom association of induced noise with values at stake is the main principle by which preception can be identified, short of glimpsing into Murphy's soul and intentions. In fact it can be very nearly unconscious on the part of the preceptor — which of us does not put his best foot forward? There is then no algorithm by which preception can be diagnosed, no more than there is a general system of hypothesis and analysis by which scientific truth can be mechanically generated from research data. The possible role of preception is a hypothesis that needs to be considered, presumably always (in the light of human nature and interest,) and tested ad hoc along with the rest of the analysis of a given set of observations.

Our basic model is that of a signal-emitter and an observer. Everyday experience in human relations probably has taught us most of

the basic lessons of preception; the intellectual block is in applying the principles of assessing interpersonal discourse to the realm of technical collection systems. Here we do not think so readily of the signals as communications; and we are liable to think of technical intelligence as if it were the observation of Nature. If, like Nature, Murphy is truly oblivious that anyone is watching, there can be no preception: the signals emitted will be simple side-effects of his other activities. However, few if any state activities can be relied upon to follow this model.

Information-security is also a form of inverted preception: signals are selectively guarded, and others not, in accordance to values of the observed/observer. This shielding then falls on an axis:



the poles of which are never seen in the real world.

A separate axis has to do with fabrication — be it of communications signals, objects, or events [e.g. 'theatre']. The dividing line that distinguishes lying from selective revelation is hard to define — e.g., when the contextual details of events are under discretionary control. It is a truism that embarrassing news stories are leaked on weekends: is that a fabrication?

In analysis, the focus should not be on deception (lying), but on preception — i.e., all the measures that Murphy might be using in his self-consciousness that we are watching. Perhaps the commonest strategem is for a human agent to tell the truth with the design of enhancing his credibility or his naivete, which is preceptive in so far as it is not his standard behavior whilst unobserved.

apparent

Other axes of the means of preception concern the use of overt vs. covert channels. The latter implies interception suspected by Murphy: this is then turned into a means of controlled communication to the observer. In this context, it may even be more credible; there are historic examples where TRUTHS have been intentionally conveyed by covert channels, open displays having been skeptically dismissed. Where large investments have been made to penetrate such channels, there is a dangerous bureaucratic incentive to minimize Murphy's chances of turning them for the whole range of preceptive activities. It is just here that the truth/deception dichotomy may be the most costly. The chief problem that Murphy faces is in getting feedback about his efforts: but we can hardly afford to be too complacent about his ability to penetrate our own channels both in the execution of preceptions and in providing informational support for his larger frame. Damage assessments of discovered breaches should include this agenda.

*credibly
accepted*

how correct

Historically, human agents have been notorious vehicles of preception; and it is doubtless true that these games are much easier

to play within the framework of the intelligence/ counter-intelligence bureaucracies, than when they involve the recruitment of other economic or even military actors. This should alert us to be most suspicious of preceptive games when intelligence, cover or concealment is already evident, albeit for other manifest ends.

The discussion so far has focussed on MEANS of preception. Can we catalog the GOALS? Probably not exhaustively, since this would embrace the whole framework of the belief-structures of state subsystems. We can factor out psywar-operations, insofar as these are directed to public morale rather than decision-makers privy to special sources of information; but the basic principles are not greatly different. But it may be easier to fool some of the people more of the time; preceptive communications directed to military and political leaders will be more complex and sophisticated.

A rough taxonomy of goals would possibly include:

- surprise
- conditioning
- sensitization
- diversion, distraction and saturation
- probes (evidentiary tracers)

(a collection that does show some overlap).

Strategic military surprise must command the highest priority of our concerns.

The works by Barton Whaley and Anthony Cave Brown give abundant examples. Hardly any of Hitler's successes were not facilitated by masterful manipulations of the assessments of his rivals; these are not well captured by the term 'deception'. More generally, military surprise has always had to rely on tight security and diversionary tactics as well as overtly fabricated deceptions. That it is far easier to run such a deception in wartime, and on a short time frame, is readily stipulated. None of the other speculations about uses of preception are intended to detract from the superordinate importance of this one.

For long-range applications, however, the CONDITIONING of our belief systems in various ways deserves priority of attention. In fact, beliefs that we cannot be surprised [e.g. on the NATO front] must be the most suspect — and deserves analysis in terms of the possible role of preceptive games in having engendered that view.

In general, conditioning is a manipulation of our perceptual system, of our way of interpreting data, rather than the implantation of a concrete belief. It is then an investment for future exploitation.

The repeated association of a given signature with a target object is, for example, likely to influence how we count such objects, or how we interpret such signatures in future. The most wearing games would involve ringing the alarms repeatedly — as the Arabs did prior to the 1973 war — to the point where it is futile to respond to each alarm (especially if ringing the bell is cheaper than sending out the fire-trucks, and the alarmer can light the match at his discretion). This form of desensitization is a saturation of material resources available to respond to alarms; others are a saturation of attention.

We can be desensitized in other e.g., less specific ways, e.g., to sheer novelty. An enigma seen many times ends up in a mental and bureaucratic pigeonhole. They might be multiplied for no other reason than a general saturation of collection/analysis; and of course they can be emplaced at places and times to create specific diversions from more significant targets. These games can also be used to establish legal precedents to legitimize future harassments of intelligence activity.

It is characteristic of active conditioning that the signals are INTENDED to be seen. At the first order, they may seem almost too conspicuous.

Non-display is also a conditioning device, to induce complacency: but we call that security (Murphy will wait for a surprise attack to deploy a previously concealed weapon). And the same principle of waiting for high stakes will surely be thought of for the preceptive games themselves.

Another branch of conditioning is sensitization. Exaggerated self-skepticism about the reliability of one's intelligence could multiply the costs and deflate the value of the product. It then pays to inject manifestly spurious information into covert channels, not to deceive, but to sensitize the observer into mistrusting his interceptions. {The main motive not to do this is of course to sustain the image of naivete for a future deception.} This gambit will be most readily thought of as a recovery operation after a security breach; but it is akin to keeping the alarms perpetually on red, or to jamming as an alternative to encryption for data security.

In peacetime, preceptions are thus oriented to counter-intelligence, but can also be used to divert our military, political and technical resources to various wild goose chases. {We would then be well-advised to reflect on the history of our adventures, to discern which of them may have been seeded by the other side. A possibly trivial example is military interest in parapsychology, though it is difficult to be sure who is taking the initiative in focussing attention on this field. Others may be more sinister in terms of the resources that are drained. I would also admit that inadvertent (?) misperceptions, like the supposed Nazi investments in biological and in nuclear weapons during WWII, may have huge consequences.} The hazard of playing this game is also well illustrated by Khrushchev's missile-gap preception of the 1950's -- that we may so vehemently overreact as to generate new threats.

Finally, preceptions might be planted as probes of our policy and intelligence processes. Murphy can better trace them if he has made controlled inputs that could only have come from his sources. There are well known historic examples of the use of this gambit to trap suspected espionage agents, but far more subtle applications are also possible. Questions like: with whom do we share our intelligence information? What is our response time to alarms of various kinds? What channels are invoked? Can cleartext be planted to probe our cryptions? What is the discriminating power of our collection systems? What fraction of sensitive sites are targetted -- this is analogous to counting wildlife by tagging and releasing samples? All these could be probed by planted preceptions.

Sources of vulnerability.

Human psychology.
Bureaucratic problems.
Asymmetries.

With rare exceptions, effective preception involves a collaboration of the belief-system of the viewer, viz. some degree of self-delusion. The roots of rigid thinking in human psychology have been reviewed in two recent remarkable books (Jervis, Janis & Mann) which should be on every policy-maker's and analyst's desk. They go far beyond the principles of wishful thinking and personal self-interest; but I leave further elaboration to those monographs.

Other speakers at the conference have mentioned some of the bureaucratic problems of attempting to manage the risks of preception. The difficulties of communicating sporadic suspicions, and the personal hazards of being labelled Cassandra deserved special attention. They are connected with the larger problem of how we deal with contingencies at the wings of the probability distribution, unlikely (does that mean $p < 0.10$?) ones that may have very high stakes. The Cassandra by definition will be wrong most of the time; how sustain his morale and our own balance about false alarms nevertheless? To give another illustration, does ACCIDENTAL WAR receive the analytical attention and the procedural safeguards that it deserves in proportion to the relative odds that it may be the trigger? What is called for is a systematic search for the ways in which our bureaucratic organization may impede clear-sighted responses to the whole spectrum of threats. One point that I would emphasize is that it must be very difficult for an organization that has had to struggle for and defend very large investments in technical collection systems to be willing to entertain the hypothesis that these can be turned into channels of disadvantageous preception. If I were the President, I would want to be sure that such an organization was leaning over backwards to forfend its potential bias of commitment, or that another one could study this problem from a detached standpoint.

Finally, we all recognize that Murphy may have many advantages in the peacetime conduct of preception, particularly in his capacities for security and for the recruitment of a wide range of witting or unwitting coparticipants. For a realistic assessment of this asymmetry, it would be important to collect the instances of evident involvement of military and civilian cooperators outside the central organization. Bittman's book implied very heavy involvement of all scientific activities, and a realistic understanding of measures that go beyond overt security is important not only for intelligence but for the justifications of various media of scientific and technological exchange.

A note about the future role of preception.

Our particular Murphy was badly bruised by the Cuban Missile Crisis, and I would be surprised if that experience does not dominate his thinking about the use of these games. When I wear a red hat, I find myself thinking that I am going to invest a lot of effort in testing my preceptive devices before I rely upon them again in a high-stakes adventure.

References:

**Jervis, R. Perception and Misperception in International Politics. 1976
Princeton Univ. Press.**

**Janis, I.L. & Mann, I.L. Decision Making: a psychological analysis of
conflict, choice and commitment. 1977. Free Press.**

**Whaley, Barton Strategem: Deception and Surprise in War.
1969. Center for International Studies, M.I.T.**

Brown, Anthony Cave Bodyguard of Lies. 1975. Harper & Row.